DOCUMENT RESUME

ED 152 831 TM 007 040

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TITLE The Feasibility of Group Evaluation in Rehabilitation Agencies.
PUB DATE Dec 77
NOTE 24p.; Paper presented at a meeting of the Michigan Association of Rehabilitation Facilities (Kalamazoo, Michigan, December, 1977); For related document, see TM 007045

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS Administrative Change; *Administrative Problems; Change Strategies; Cost Effectiveness; Evaluators; *Group Tests; Individual Tests; Occupational Tests; Performance Tests; Rehabilitation Centers; Student Attitudes; Testing; *Testing Problems; *Vocational Rehabilitation; *Work Sample Tests
IDENTIFIERS *Micro TOWER System of Vocational Evaluation; Valpar Work Sample 14 Integrated Peer Performance

ABSTRACT

Traditionally, most rehabilitation centers have evaluated a clients' vocational skills on an individual basis. Individually administered work samples, however, may not provide as much individual attention to the assessment process as is usually assumed. Two types of group work sample evaluation systems have been developed: the Valpar Work Sample #14, Integrated Peer Performance, in which clients work cooperatively on an assembly line task; and the Micro-TOWER System of Vocational Evaluation. The Micro-TOWER System consists of a series of work samples covering verbal, numerical, spatial, motor, and clerical-perception skills. The evaluation takes place in a separate room, and each of eight to ten clients are provided with an identical set of necessary equipment. During a practice period, the evaluator demonstrates the work sample, and provides assistance to the clients as they practice. During the evaluation period, clients work on their own. Some of the benefits of group evaluation include increased interaction between the evaluator and client, cost benefits, interaction between clients, and the supportive atmosphere. Some administrative problems, such as staff resistance, space requirements, staffing increases, and costs, should be anticipated. (BW)

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THE FEASIBILITY OF GROUP EVALUATION IN REHABILITATION AGENCIES

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Paper presented at meeting of Michigan Association of Rehabilitation Facilities, Kalamazoo, December 1977.

Administrators must make major decisions that determine whether work evaluation units grow or diminish, develop or stagnate. Every year new work sample systems become available, new evaluation techniques are developed, and new federal regulations and guidelines affecting testing and evaluation come into being. Administrators must rely on their trained staff for input; but they themselves must have some background in evaluation, in order to interpret and use this input wisely.

A new method for evaluating client's basic vocational skills has appeared in rehabilitation. The new technique makes use of group administered work samples. It is important for administrators to understand the benefits of group evaluation in work sample assessment. It is also important that they be aware of the possible problems that may have to be dealt with when introducing group evaluation into a rehabilitation facility. The discussion here is directed specifically toward the needs of facility administrators and those working in state departments of vocational rehabilitation. Much of what is said should be of interest to front line staff as well, i.e., evaluators and counselors.

A LOOK AT VOCATIONAL EVALUATION

Traditionally, in the field of rehabilitation we have been evaluating clients' vocational skills on an individual basis. Although clients may be working in a large room where there are others, each client is essentially working alone: one working on

drafting, another on filing, and so on. The evaluator moves around the room, coming to each one to explain the task, to assist with any problems, and later to score the work sample.

We seem to have concentrated mainly on the individual approach in our evaluation process. This is probably because we have relied heavily on the workshop situation and work samples. The first work samples were designed to be given to one client at a time (Rosenberg, 1977). The earliest work samples, now known as TOWER, were originally developed in the mid 1930's at the Institute for the Crippled and Disabled in New York City. (Several years ago the agency changed its name to the ICD Rehabilitation and Research Center). Over the years the TOWER work sample approach became an accepted form of vocational evaluation both nationally and to some extent internationally. In recent years, other work samples have become commercially available. Most of these, however, have continued to pattern themselves after the TOWER concept. i.e., they are administered on an individual basis.

It is important to note that this is not individual, one-to-one evaluation, as we know it from tests, such as the Wechsler Adult Intelligence Scale (WAIS). In these tests, one evaluator works with just one person throughout the entire evaluation.

In rehabilitation we pride ourselves that by letting clients work individually we are giving individual attention: That we are offering each person a program designed to meet his or her needs and interests. But is this generally true? It is likely

that if a close examination were made of most work evaluation units, we would find the situation not quite as ideal as we would like.

ARE WE PROVIDING SUFFICIENT INDIVIDUAL ATTENTION?

Let us consider individual attention. What is the typical work evaluation unit like? An evaluator, under ideal conditions, has six to eight clients working on different tasks. While helping one client, the evaluator is not interacting with the other clients nor is he/she observing them. Also, since the evaluator can only help one client at a time, other clients who need help must wait. In addition, since the clients are working on different tasks and often not sitting near one another, they cannot benefit from explanations given to others.

It would be interesting to do a study to see what proportion of a given client's time in evaluation is comprised of the evaluator's making observations and interacting directly with the client. The results would be surprising to some, as the proportion is probably quite low. One reason may be the kind of training and amount of experience the evaluator has had. Other reasons become obvious if you look at a typical evaluation unit.

With individually administered work samples the evaluator must move from client to client, spending only a limited amount of time with each one. In addition, evaluators, particularly in smaller facilities, are called to the phone, interrupted by other staff members, called to brief meetings, engaged in conversations

by staff and clients, and asked to fill out large numbers of forms and reports -- all while they are supposed to be observing clients' behavior and work performance.

It is true that for some purposes it may be necessary to have clients work on their own, as they may have to on some jobs. But let's not delude ourselves into thinking that this is necessarily the best or only kind of individual assessment. And let us not pretend that this is comparable to individual one-to-one assessment, where the evaluator works only with one client throughout the entire evaluation period.

Some questions that must be answered are: Does the current practice of individually administered work samples help us to learn as much about clients as we can? Are we confusing assessment of skills with observations of general work tolerance? And related to this, are we evaluating clients as efficiently as we could? And, are we giving them the concentrated attention required for a thorough evaluation?

ARE CLIENTS RECEIVING EVALUATION PROGRAMS DESIGNED TO MEET THEIR INDIVIDUAL NEEDS?

A look at the work samples given to clients within an agency will usually reveal that most tend to be given the same work samples. This may be because the agency only has a limited number of work samples, or because the evaluators are only comfortable administering and interpreting a half dozen or so. More extensive and thorough training in work sample evaluation would help evaluators

broaden their understanding of what is available and appropriate to use.

If there are only limited job opportunities in the area and work samples are related to these jobs, then a common battery of work samples could be appropriate. Also, if the common battery provides a measure of basic aptitudes, then this could be justifiable as well. But usually the reasons are availability of work samples and a sense of comfort with what is known. Neither of these reasons leads to evaluation programs geared to individual need.

Now that we have looked critically at individually administered work samples, let it be said again that there is a place for them within the work evaluation process. Some clients do work better on their own; some clients do need intensive evaluation in special areas. Behaviors, such as perseverance and the ability to perform tasks over long periods of time, are sometimes better evaluated by the individually administered work samples. What is needed, however, is a combination of group and individual evaluation. The two methods can supplement each other: In this way we get more information on our clients, and a more varied kind of information. In addition client and staff time is utilized more efficiently.

A LOOK AT GROUP EVALUATION

Now let us examine group evaluation more closely. Group evaluation with work samples is new. Presently it takes two forms.

One involves a cooperative situation in which clients work jointly on a task. This is illustrated by the Valpar Work Sample #14, Integrated Peer Performance, recently developed by the Valpar Corporation in Tucson, Arizona. In this work sample, client work cooperatively on an assembly line task, with each performing an operation in turn. This work sample measures eye-hand coordination, motor skills, speed, concentration, and ability to work under stress. A maximum of five clients can be tested at one time.

The other type of group evaluation follows the more traditional method used in paper and pencil testing. Here a group of clients is taking the same work sample at the same time: Each client has a separate set of equipment and works on the task independently from the others. This form of group evaluation is illustrated by Micro-TOWER, a system of work samples developed at the ICD Rehabilitation and Research Center in New York City (Backman, 1977, 1975; Loeding, 1975).

The Micro-TOWER system consists of a series of work samples covering basic vocational skills: verbal, numberical, spatial, motor, and clerical-perception. Much of what we know about group evaluation with work samples is based on over four years of experience with Micro-TOWER--experience at ICD as well as at the 18 sites that were part of the national field testing.

As group evaluation with work samples in new, let us use the Micro-TOWER setting to illustrate the techniques involved. The evaluation takes place in a separate room where a number of tables have been pushed together, forming a large surface similar

to a conference table. (Other arrangements such as a u-shape are also possible). Clients are seated around these tables, each having an identical set of equipment. For example, if the work sample is Drafting, each client would have a drafting board, t-square, compass, set of sample designs, and so forth. The evaluator would also have a set of equipment for demonstration purposes.

(Micro-TOWER has standardized administration and scoring procedures. Standardized testing procedures can be used with both group and individually administered tests; they are not unique to group evaluation. The pros and cons of standardized testing will not be dealt with in this paper so that we may concentrate on the main issue, group testing).

In the beginning of each Micro-TOWER work sample the clients are shown photos of persons in various jobs requiring the same skills as the work sample. These photos are intended to expand the clients' awareness of the world of work. They also demonstrate that many jobs require the same skills as those assessed by the work sample. The clients are then shown how to do the work sample; time is allotted for practice. During this period the evaluator can provide help as needed. The last part of the work sample is the evaluation period, during which time the clients work on their own with no help from the evaluator.

Following each work sample, clients fill out forms reporting on how well they liked the task, how well they thought they did, and whether or not they would like a job in that area. At the end

of each day, a group discussion is held. At the end of the entire evaluation, the clients are given feedback on their performance.

BENEFITS OF GROUP EVALUATION

Now what are some of the benefits of group testing? Why would an agency decide to add this kind of evaluation to an already functioning work evaluation unit?

The Ever-Present Evaluator

In the group situation, as illustrated by Micro-TOWER, the evaluator is always in the room with the clients and is readily available to them. This provides a supportive environment, as the evaluator can offer encouragement and assistance almost immediately. This is extremely important when one is dealing with persons who have emotional problems and low frustration tolerance.

The steps for learning the Micro-TOWER tasks are small enough so that clients with little experience can grasp what is expected of them; they also have a chance to practice each task before being evaluated. As the evaluator is readily available, those having problems need not wait long for help. Also, since all are working on the same task, an answer to one client's question is often of benefit to all. When the evaluator is helping one client, others can observe and learn, since they are all working on essentially the same task. In this way the group learning period becomes more effective and efficient than that of the individual evaluation. In fact, more individual attention can

actually be given in the group setting.

Cost Benefits

Is group evaluation more efficient than individual evaluation; is it more cost effective? For paper and pencil tests, group testing is usually more cost effective. For work samples this is hard to answer. The group setting may make it possible to work with a large number of clients at a time. But, in many states, rehabilitation regulations stipulate that evaluators are to work no more than six to eight clients at a time. In situations where this number need not be adhered to (e.g., schools, perhaps initial screening of clients), more people could be tested at one time. This would improve the cost-benefit ratio.

Depending upon the severity of the mental and physical conditions, one evaluator can usually evaluate up to ten or twelve clients in a group. Larger groups have not yet been tried, but with relatively able populations there would seem to be no reason why they could not be accommodated. An aide may be needed if they group size exceeds ten. Also with a larger group there may be a need for clerical help with scoring; and additional time would be needed for the writing of reports.

Space is another factor that must be considered when the group size is increased. Sufficient room must be available to accommodate the equipment the clients will be using. A room 225 square feet should be adequate for testing six or seven clients.

Another, often overlooked benefit of group evaluation, is that more equipment is available with each work sample than is true for the individually administered work samples. This is so, because each client in the group requires a set of materials. For example, to evaluate seven clients with Micro-TOWER Drafting, the necessary equipment would include eight drafting boards (including one for the evaluator), eight t-squares, eight compasses, and so on. To evaluate seven clients on all 13 work samples, one would get 91 sets of work samples (13 work samples x 7 clients per group) plus one each for the evaluator. The cost of these 91 work samples, plus the 13 for the evaluator, is $6,015. To obtain the same number of sets of individually administered work samples, one would typically have to spend tens of thousands of dollars. Future innovations may result in different financial breakdowns.

Client Interactions

We tell ourselves that work evaluation units resemble a real work setting. Close examination would show that this is true, but only to a limited extent. For one thing, with the individually administered work samples, there is very little interaction amongst workers; this is not always true on-the-job.

Adding group administered work samples to the evaluation unit makes it possible to see clients in a situation in which they are working with others. This is important as many persons fail on jobs, not because they lack the requisite skills, but because of social adjustment problems. Both the Valpar and Micro-

TOWER group work samples provide opportunities for observing how clients will interact with others.

The Valpar work sample #14 simulates an assembly line where the person's actual movements are related to what others are doing. In Micro-TOWER, the client interaction is not related to working on the specific task, as it is in Valpar. Here the clients work independently on each work sample. As they are being evaluated in a work situation with others, very good observations can be made of their interaction with other workers: Are they supportive of others during the learning and discussion periods; how do they interact with the other workers; how do they relate to the supervisor?

Clients' Preferences for Group Evaluation

Now let us look at group testing from the clients' point of view. Do they prefer to be evaluated alone, or as part of a group? Persons unfamiliar with Micro-TOWER often ask if the group situation isn't competitive and doesn't produce anxiety in clients. This may be true for some, but experience has shown that for most clients the group situation can actually be a supportive one.

Group assessment need not always be competitive or pressured. In Micro-TOWER, only a few work samples involve speed; on the other work samples sufficient time is allowed for most clients to complete the task. The situation is not competitive, by and large. Time is allowed for practice, and experience has shown that members of the group, as well as the evaluator, provide support and encouragement to those who feel frustrated or express negative feelings about them-

selves. Also, on actual jobs most persons work with others, either directly or indirectly, even if they do not work cooperatively on a task. If a client cannot function with other people, even where there is some structure such as Micro-TOWER, then you have learned something: the client may not be ready for employment.

Let us remember that evaluation is anxiety producing whether you are a client, a student, a professional being evaluated for certification, or a person taking a driver's test (a work sample, if there ever was one). Clients frequently come into a evaluation not knowing what is going to happen to them; they may become intimidated by all the professionals talking to them - or ignoring them as the case may be. It is a new, strange situation, and they have a lot at stake.

During the developmental stages of Micro-TOWER, we conducted a survey to see how the clients felt about group testing. We randomly selected a group of clients who had taken both Micro-TOWER and individually administered work samples. They were given a very simple questionnaire asking which they preferred: About two-thirds of the clients preferred the group evaluation (Backman, Loeding, & Lewis, 1975).

About this same time, evaluators were noticing that they could tell which clients had been previously evaluated in the group setting. Not all the clients at ICD had taken the group work samples, and what the evaluators were observing was that those who had had the group experience were more "socialized". Most clients who come to ICD know no one on their first day. For several days or

weeks they may go to lunch alone, take breaks alone, and feel isolated from others. Those who have had the group experience, however, establish a social unit that lasts for sometime. (One Evaluator has informed me that there has been at least one Micto-TOWER marriage!).

A later study of client self-concept supported these observations (Fingerhut, 1977). This study revealed that clients' self concepts became more positive after a week in group evaluation. Unfortunately when they then went into individual evaluation, their self concepts became almost as poor as they had been before the group process.

The reasons for these changes in self-concept need to be investigated. However, it appears that something good is happening in the group setting. Perhaps it is the supportive environment, the immediate attention of the evaluator, the encouragement or presence of other clients. Maybe misery just loves company.

INTEGRATING GROUP AND INDIVIDUAL EVALUATION

As stated earlier, there is a place in most rehabilitation agencies for both group and individual evaluation. Some clients work better in groups; others perform best when working alone. In many cases seeing clients in both situations provides the most useful information. In this way the right job setting can be recommended.

One way to integrate group evaluation into an agency is to use it as a screening device for further evaluation or training. This is possible with Micro-TOWER, as it provides a profile of basic

aptitudes. It can be the first step in an evaluation program; in this way the clients start out in a supportive environment and form a social unit. Observations can also be made of the clients' interactions in the group. Their performance, as indicated by the aptitude profile, can be used to direct them to areas where more intensive evaluation is needed. This additional evaluation can then be done by individually administered work samples. Since these work samples usually take much longer than group work samples, fewer of them need to be given. This provides a more efficient and effective form of evaluation. In some cases, clients may be referred directly into training; in other cases further evaluation may be delayed until behavioral or personality problems are dealt with.

POSSIBLE ADMINISTRATIVE PROBLEMS WITH GROUP EVALUATION

By now you may feel that it might be a good idea to introduce group evaluation into your agency. But you should be aware of possible problems you may have to deal with.

STAFF RESISTANCE

As mentioned earlier, group evaluation with work samples is new. Anytime something new is introduced into an on-going operation there tends to be some resistance. Some resistance may be good, as it forces one to think through and to justify what is being done. Some resistance, however, may come from a fear of the unknown: Is this going to make more work for me; is it going to generate more paper work; is it really different or better than what I have been

doing? Yes, there is much comfort in the status quo. If something has been working, why change it?

Inservice Education

Whenever a new procedure is to be introduced into an organization, time should be devoted to educating and training staff. As soon as possible, staff input should be encouraged. Once the decision has been made to proceed with the new operation, all staff should have a thorough exposure to the new system. Administrators, counselors, evaluators, and clerical staff should be included in the inservice education. Any changes in operational procedures should be clearly spelled out, and ways for making the changes occur smoothly should be presented. The inservice education is usually not accomplished after one meeting, but requires a series of meetings to answer questions and to work out any possible problems.

The Involved Administrator

The catalyst for making a new operating procedure work is the involved administrator. The involved administrator is committed to the idea that the new procedure will work and conveys this committment and enthusiasm to the staff. One way this involvement is demonstrated is by making the necessary decisions as quickly as possible; this insures that operations will follow smoothly. These decisions take the form of allocating space, hiring staff, or allocating funds for purchase of equipment.

SPACE REQUIREMENTS

A suitable testing area must be found for the group evaluation. The room should have adequate lighting, ventilation, furniture, and storage space for equipment. If the evaluation system is standardized, as is Micro-TOWER, a separate room with a closed door will be needed. This is to insure that the standardization procedures will be maintained and that clients will not be distracted during the learning or evaluation periods. An interruption can affect a client's score if it takes place during a timed evaluation.

Some might say evaluation in a separate room does not resemble a real work situation, but one has to decide what the goals of the evaluation are. If what is needed are objective, interpretable results reflecting a person's basic skills, then distractions only confound the interpretation of results. If you wish to evaluate how well a client tolerates distractions, then you should devise a work sample specifically for that purpose.

STAFFING

It is usually best to have more than one evaluator trained to do the group evaluations. This is particularly important if standardized work samples and tests are used. Evaluators can alternate giving the work samples, and can substitute for each other during vacation times or sick leave. Also, time should be allocated for training of staff in the work sample administration. This may

be days or weeks depending upon the system: for Micro-TOWER it is a minimum of two days.

Clerical help is also useful for the scoring of work samples. This is particularly true when the reports are needed soon after the evaluation period has been completed. Making such help available to the evaluators helps alleviate some of the concerns about increased work load. An aide may also be needed if the group size is larger than ten.

COST

The cost of a work sample system is another problem that must be dealt with. Most of those available commercially, whether individual or group administered, run in the thousands of dollars. With a group system, such as Micro-TOWER, however, you are getting much more equipment for your money than with the individual systems. This is because for a given work sample there is enough equipment to test several clients at a time, whereas with individual work samples there is only enough for one client.

One question you may be asking yourself is why you would want to purchase a system rather than develop one in-house. Some agencies do both. But it is costly to develop work samples. This requires time, money, and skilled staff.

Commercially available systems have several advantages. Many already have norms available. Some have documented evidence of their reliability and validity. The commercial systems have been

tried out and you can evaluate their usefulness before expending time and money. You also have the benefit of the skilled professionals who developed the system, and who will provide technical assistance. In addition, the equipment is often of better quality than you can get because it is purchased in quantity or has been specially designed.

Commercially available work samples have been criticized as too costly. On the surface it would appear to be, if one only looks at the actual hardware. But the developmental costs are high. Typically it takes two to three years to develop a system, and on-going research and expansion of the system must go on. Highly trained professionals have contributed their expertise to the design of the work samples. (I am speaking of the better systems; there are always those that do not meet standards in any market.)

Assuming that you are willing to purchase a work sample system, how can you afford it? One common way is to write the work samples into grants, such as CETA grants. Most developers of work samples will have someone on staff to help you in the area of selecting and writing grants. Seek out these specialists and plan ahead.

WHERE DO YOU GO FROM HERE?

Before investing in any new procedure, learn as much about it as you can. To do this, involve as many trained specialists as you have available: psychologist, counselors, evaluators. If you don't have a staff member trained in psychometrics, it could be worth your while to invest in a consultant, such as a university

professor, psychologist, or rehabilitation professional with a speciality in measurement or evaluation.

Get all the literature you can. Ask for manuals describing the system and reporting technical data, such as reliability and validity coefficients. See if there are norms available for clients similar to those you serve; these norms will give you an indication of the work samples' appropriate level of difficulty for your clients. The trained professional can help you interpret this technical data.

Don't be overly impressed by fancy technology and equipment; make sure the equipment is sturdy and durable. Get the names of other users and find out how they like the system and how they are using it. Check the repair record. Find out if there are warranties. Also find out how much consummable material there is, so you can budget for it.

Attend conferences, go to exhibits, request slide shows from the producer or from the Materials Development Center at the Rehabilitation Institute, University of Wisconsin-Stout (Menomonie, Wisconsin). And, if possible, visit other centers using the system.

Have the consultant advise you how to integrate the new system into your agency. This way you can make the best use of the results.

And most importantly, ask yourself what you want to get out of this new system; what sorts of questions do you want it to answer. Be specific, for only then can you evaluate your own needs.

SUMMARY

There seems to be a place in work evaluation for both group and individual assessment. Up to this time individual assessment with work samples has been the mainstay of work evaluation units. Recently work samples have been developed that can be administered to small groups of clients.

The group approach provides a supportive environment, and allows the opportunity to observe how a person works and interacts with others. The group approach can also be more efficient and cost effective: The evaluator is always on hand, providing help that is useful to more than one client at a time; in certain settings one evaluator can work with more clients than is possible in individual evaluation.

The individual approach, on the other hand, allows for more intensive evaluation in more limited areas. It also allows clients to work on their own and frequently at their own pace.

By using both approaches, one learns about client's work behavior when working with others and when working alone; this can lead to more appropriate selection of jobs or training programs. Following the group evaluation, individually administered work samples can be used for more intensive assessment. These work samples may be in an area where the client has performed well or has shown an interest during the group evaluation.

Introducing a new system, such as group evaluation, into a rehabilitation facility requires the attention, cooperation, and

involvement of administrators, as well as counselors and evaluators. The administrator can help by seeing that testing space is made available, staff hired or trained, and clerical help provided where needed. In-service training programs must be set up for all staff, so that the new operation will run smoothly. And last but not least, funds must be secured for the purchase of the new equipment.

Work evaluation is not solely the responsibility of the evaluators and counselors. Administrators must become more involved in seeing that the new approaches are accepted and properly integrated into the agency. If not, the resistance and fears of the staff about the possible failures of a new system may result in the Self-fulfilling Prophecy.

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